All Together Now

Are Multifunction Devices Worth Their Weight?

If you've ever stayed up late watching infomercials on cable TV, you've probably seen advertisements for gadgets that seem to do virtually everything: "It slices, it dices, it even bends metal!" Those products might leave you wondering if one device can really perform so many different tasks well, or if it is best to have a separate tool for each job.

We haven't tried the do-it-all kitchen gadgets, fishing tools, and cleaning supplies that are hawked on those late-night commercials, but we have tested do-it-all computer peripherals.

A **multifunction device**, also known as an MFD or all-in-one, is a peripheral that works as a printer, scanner, photocopier, and depending on the model, fax machine. A printer is usually considered a necessity for every computer user. For about the same price as an ordinary printer, you can get an MFD that does far more than just put words and pictures on paper.

All-in-ones have a variety of advantages and disadvantages when compared with using separate peripherals. Is an MFD right for you? You don't have to sit through an infomercial or call a friendly operator to find out. Just read on.

Benefits

The two biggest benefits of all-in-one devices are their small size and low cost relative to buying separate peripherals. In a cramped workspace, a separate printer, scanner, copier, and fax machine might consume all of your desk space (and electrical outlets). An MFD, usually about the size of a printer alone, uses a fraction of the desktop real estate.

With price tags from $99 to $499, an MFD could cost significantly less than standalone peripherals, although it won't necessarily be less expensive to run. (More on this below.) MFDs are inexpensive because many of the parts that perform one function are also used to perform another. For instance, a single scanning mechanism can scan photos and make copies. The printing mechanism can print those copies in addition to printing documents from your PC. Like standard printers, MFDs are also inexpensive because the manufacturers can make up the difference in the cost of ink or toner.

For many people, the biggest benefit to an MFD is access to functions that they couldn't justify purchasing alone. If you only need to photocopy or fax a couple of pages each week, it doesn't make financial sense to buy photocopy and fax machines. An all-in-one device can add those functions

The Brother MFC-8420 offers a flatbed scanning surface and automatic document feeder.

Resembling a traditional fax machine, the MFC-8420 supports faxing.

For $130, the MultiPass 360 is a basic color inkjet printer, copier, and scanner.

The ImageClass MF5550 packs fax, automatic document feeder, printing, copying, and scanning into a do-it-all machine.

The Epson CX6400 can print proof sheets and full-sized pictures from your digital camera without help from the PC.

to your computer for virtually the same cost as a new printer, eliminating time-consuming trips to your local copy shop.

Problems

An all-in-one is multitalented, but it may not be able to perform every function as well as the standalone devices it replaces. Most of the models we tested are just fine for printing and faxing, but scans often don't equal the quality and speed of a decent standalone scanner. Likewise, although an all-in-one can be convenient to use as a copier, it can be slower and more expensive to run than a dedicated photocopier.

If your MFD breaks, your home office could be crippled rather than merely inconvenienced. Not only would you not have a printer, but you're also out a scanner, fax machine, and so on.

As a rule, inkjet printers are more expensive to run than laser printers. The toner for a typical black-and-white laser printer costs a penny or two per page, while an inkjet's ink can run from 4 cents per page for basic black text to more than a dollar per page for an 8- x 10-inch color picture. Likewise, MFDs that use inkjet printing cost more per page than ones that use laser technology. By printing incoming faxes and copying pages, you're likely to print more pages with an MFD device than with a standard printer, further increasing the cost.

Unless you need to print and photocopy in color, it might be wise to look for an MFD that uses laser printing rather than inkjet. They cost a little more initially but can save you money in the long run. Laser printers are much faster than inkjet printers, too.

By their nature, MFDs are more complex than one-trick-pony printers. Most MFDs are covered with buttons and include special software to support copying, scanning, and faxing functions. If you need to keep the computer workstation simple (in a computer lab or as part of a technophobe's PC setup, for instance), an MFD might not be the way to go.

Using An All-In-One

Setting up an all-in-one is very similar to hooking up a traditional printer. The machine will connect to your PC via a USB (Universal Serial Bus) port. A few models, particularly those from Brother and Samsung, also include a parallel port, which is useful for connecting to older PCs that don't have a USB port.

Some midrange and high-end models include networking, allowing the machine to connect to, and be controlled by, more than one computer. If your all-in-one doesn't have built-in networking, you can use your OS' (operating system's) printer sharing feature to use it as a shared printer. But that won't turn the machine into a fully shared device. Other features, such as scanning and faxing, may only be possible using the computer that's directly connected to the device.

As with any printer, you'll have to install a software driver so the computer can communicate with the device. All MFDs include Windows drivers. If you use Mac OS or Linux, make sure any MFD you're considering includes drivers for your OS. You may have to visit the manufacturer's Web site to get the full details about compatibility with your favorite OS. In some instances, basic printing is supported, but scanning and faxing from the PC is not.

Choosing An All-In-One

Before you settle on an all-in-one model, there are some decisions to make, starting with inkjet vs. laser output. Most of the MFDs on the market are inkjet-based, so if you go with laser, there are fewer choices to contend with.

The next question is whether you need a model that can send and receive faxes. Units with faxing capability connect to your phone line, allowing them to send and receive faxes like a traditional fax machine. Many models include the ability to

The Epson Stylus Photo RX500 and RX600 are the only all-in-ones we looked at that can scan photo negatives and slides, allowing you to digitally preserve your Kodak moments.

send and receive color faxes. This can be a nifty feature if you're connecting to another color-capable fax machine. However, color is not widely supported in traditional fax machines.

In addition, many models let you send faxes directly from the computer, for instance, letting you fax a word processing document without printing it out first. Faxing capability typically adds $50 to $100 to the price of an all-in-one.

The last major choice is between flatbed or sheetfed models, which determines how scanning, copying, and faxing work. A flatbed model resembles a standard copy machine, in which you can place an object, such as an open book, on a glass surface for scanning, copying, or faxing. On the other hand, a sheetfed model only accepts loose-leaf pages but can take a stack of them and feed them through automatically, a real time-saver when you need to copy or fax several pages. Which is better for you depends entirely on how you will use the machine. A few models offer the best of both worlds. The HP Officejet 6110 and Brother MFC-8420, for instance, include both a flatbed and automatic document feeder.

If you use a digital camera, you might want an MFD model that includes slots for digital camera media. With this feature, you can insert your CompactFlash, SmartMedia, or other digital media into the MFD to print your photos without turning on the computer. (Be sure the all-in-one that you choose accepts the type of media that your camera uses.)

When you're shopping for an MFD, you'll see familiar names again and again: The vast majority of consumer all-in-ones are manufactured by Brother, Canon, Epson, HP, Lexmark, and Samsung. Here's a look at some of the models that are currently available from each company.

Brother

Brother's (http://www.brother.com) MFD lineup includes a selection of laser- and inkjet-based units. For laser-based units, there's the sheetfed MFC-4800 ($249.99) and the MFC-8420 ($449.99), which includes both a flatbed and an automatic document feeder. The 8420 is also expandable—you can add a second paper tray and a network card to connect it to more than one computer. Both include the ability to send and receive faxes.

The Lexmark X6170 prints and copies at a breakneck 19 pages per minute.

Brother has many choices for color inkjet units, including the MFC-3220c, MFC-4420c, and MFC-5200c. (The "c" in these model names stands for color.) All three models include the ability to fax. The 4420c ($199.99) has a flatbed-scanning surface and includes card readers for printing directly from your digital camera's CompactFlash, SmartMedia, or other memory cards. The sheetfed 3220c ($129.99) is among the least expensive units that include faxing. The MFC-5200c ($249.99) includes a flatbed and automated document feeder, plus memory card readers. Many Brother models, including the 5200c, support both USB and parallel ports, a feature missing in most other brands.

Canon

Six flatbed, inkjet-based MFDs are available from Canon (http://www.usa.canon.com). On the low end of the spectrum is the MultiPass MP360 ($129.99), a basic machine for printing, copying, and flatbed scanning. For $199.99, the MultiPass MP390 adds faxing and digital camera memory card readers. The middle of the line includes the MultiPass MP730 ($299.99), which adds faxing and includes a flatbed surface and automatic document feeder.

Canon's two top-of-the-line all-in-ones are laser-based: the ImageClass MF5530 ($399) and MF5550 ($499). The 5530 includes fast copying, printing, and scanning with an automatic document feeder. The 5550 also offers fax capabilities.

Epson

Epson (http://www.epson.com) brings four MFDs to the table, all inkjet-based. The Stylus CX5400 ($149) and Stylus CX6400 ($199) are close cousins, with the ability to print photos and copies right to the edge of the paper. The CX6400 adds faxing capabilities and card slots for digital camera media. A useful feature lets the unit print a proof sheet of the images on your digital camera card: fill in the bubbles to select the pictures you like best, scan the proof sheet, and the unit will print full-sized versions of

The HP PSC 1210 will print, copy, and scan for less than $100.

Sub-$100 MFDs: Are They Worthwhile?

In your local computer store and online, the prices of all-in-one devices might amaze you. The typical price range is from $200 to $400, but you can find some models for $99. Factoring in mail-in rebates, you may be able to score one for even less.

If you're strapped for cash, some of these bargain-basement MFDs (multifunction devices) might be worth your attention, but in the long run, they will cost you as much as, or perhaps more than, devices with a higher initial cost. HP and Lexmark currently offer all-in-ones for under $100.

The HP PSC 1210 ($99.99) is a good option for buyers on a budget. The model is particularly compact and designed to slide right up against a wall, making it a good choice for a crowded workspace. It isn't the fastest printer, but it produces great-looking images and documents. Like many inkjets, the ink isn't cheap. The retail price for HP-branded ink is $20 for black and $35 for color, so replacing both carts twice will cost more than the printer itself. HP says the black cartridge will print about 450 pages.

Lexmark has a line of low-cost models, including the PrinTrio Photo P3150 ($99.99), X2250 ($99.99), and X1185 ($79.99). These low-end Lexmarks are slow, loud, and expensive to run—not, in our experience, worth the trouble. The P3150 and X1185 can't make copies when the PC is turned off, which can be an exasperating limitation when you just need a quick copy.

None of these inexpensive machines includes the ability to send and receive faxes. Also, none of them comes bundled with a USB (Universal Serial Bus) cable, which means adding $5 to $10 to the bottom line.

your favorites, all without turning on the computer.

If you need to scan 35mm film negatives or slides, the Stylus Photo RX500 ($249) and RX600 ($349) provide a unique feature: built-in transparency adapters in addition to digital camera media slots. The RX600 adds a 2.5-inch color LCD (liquid-crystal display) for viewing and editing photos without help from the PC. Neither of these models include faxing functions.

HP

HP (http://www.hp.com) has a wide selection of MFDs ranging from a $99 bare-bones unit to a $500 behemoth that can power a busy office. Churning out 22 pages per minute, the Officejet 7130 ($499.99) is among the fastest inkjet models available. It includes a flatbed scanner plus automatic document feeder, memory slots for reading your digital camera media, and fax capabilities. Its paper-handling prowess goes beyond the norm with automatic collating and two-sided printing and copying.

With its Ethernet port, HP's PSC 2510 can send scans to and faxes from any computer in your home or small office.

The $399.99 PSC 2510 is a notable all-in-one for two reasons. First, it's the least expensive model with built-in networking: Just plug it into your Ethernet hub and up to five computers can print, scan, fax, and control its copy functions. Secondly, the unit's 2.5-inch LCD makes controlling its various functions easy.

If you prefer a laser-based machine, check out the LaserJet 3015 ($299.99), which also includes fax functions.

Lexmark

Lexmark (http://www.lexmark.com) offers a bevy of low-cost inkjet all-in-ones, with price tags from $99 to $200. The top-of-the line is the X6170 All-In-One Office Center ($199.99), which includes a flatbed and automatic document feeder, faxing, and speedy printer output. The least expensive models in the lineup aren't so impressive, however. (See the "Sub-$100 MFDs: Are They Worthwhile?" sidebar.)

Samsung

Samsung (http://www.samsungusa.com), a relative newcomer to MFD products, offers three MFDs that all use laser technology. The SF-565P ($299) packs in a laser printer, fax machine, sheetfed scanner, copier, and telephone handset. If you prefer a flatbed-scanning surface but don't need fax functions, there's the SCX-4016 ($299). For $100 more, the SCX-4216F provides the whole enchilada: fax, flatbed, and automatic document feeder.

All three models include USB and parallel ports. A word of warning, though: Toner cartridges for Samsung printers can be harder to find than those from other manufacturers.

Worth Their Weight?

The bottom line is whether MFDs are worth the money. As long as you choose the right model for your needs, an all-in-one can be a smart addition to a home or office. They're convenient, save space, and cost less than individual components. Keep in mind that for copying, they can be expensive to use relative to a standard photocopier, so you may still want to run down to Kinko's when you need to duplicate more than a few sheets.

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